

Amendments to the Claims

This Listing of Claims replaces all prior versions, and listings, of claims in the present application.

Listing of Claims:

1. (currently amended) An installation for processing a substrate having at least one processing station, wherein to hold and/or transport the substrate the installation comprises at least one frame having an annular top part and an annular bottom part with a carrier clamped in said frame between the top and bottom parts thereof, said carrier being adapted to have the substrate secured over substantially its entire surface to the carrier, said processing station comprising a chuck electrode having a surface, the carrier being made of a nonconductive dielectric material having a conductive layer disposed on one side thereof,

said carrier being adapted to be removably positioned adjacent said surface of said chuck electrode so that said carrier and said chuck electrode together form an electrostatic chuck device wherein the conductive layer of said carrier and surface of said chuck electrode form two plates of a plate-type capacitor when positioned adjacently and connected to a voltage source.

2 (canceled)

3 (previously presented) The installation as claimed in claim 1, characterized

- a) in that the frame is conductive at least regionally; and
- b) in that the carrier is clamped in the frame in such a way that the conductive layer is contact-connected to the conductive region of the frame.

4. (previously presented) The installation as claimed in claim 1, characterized in that the carrier is formed by a vacuum-compatible, thermally stable film and the conductive layer is formed by a vapor-deposited metallization or a conductive polymer.

5. (previously presented) The installation as claimed in claim 4, characterized in that the film is from 50-200 μm thick, and the metallization is from 0.03-0.5 μm thick.

6. (previously presented) The installation as claimed in claim 1, characterized in that the chuck electrode is constructed on a base body which comprises a radiofrequency electrode, the chuck electrode being electrically insulated from the radiofrequency electrode.

7. (previously presented) The installation as claimed in claim 1, further comprising a dielectric layer arranged between the chuck electrode and the carrier when the carrier has been positioned adjacent to said surface of the chuck electrode.

8. (previously presented) The installation as claimed in claim 1, characterized in that the processing station comprises a voltage source for applying a voltage between the frame and the chuck electrode.

9. (previously presented) The installation as claimed in one of claim 1, characterized in that the chuck electrode comprises a plurality of regions of different polarity.

10. (previously presented) The installation as claimed in claim 1, characterized in that the processing station comprises a gas feed for feeding a gas into a space between the chuck electrode and the carrier.

11. (currently amended) A frame structure for holding and/or transporting a substrate, comprising a frame having an annular top part and an annular bottom part and a film carrier clamped in said frame between the top and bottom parts thereof and being adapted to carry said substrate on a surface thereof said film carrier being made of a non-conductive dielectric material having a conductive layer disposed on one side thereof, said frame being conductive at least in a region thereof, said carrier being clamped in said frame so that said conductive layer of said carrier is in contact with said conductive region of the frame.

12. (canceled)

13. (previously presented) The frame structure of claim 11, said conductive layer of said film carrier being a vapor-deposited metallization or a conductive polymer that is vacuum-

compatible and thermally stable, said non-conductive dielectric material of said film carrier being polyimide.

14. (canceled)

15. (currently amended) A method for processing a substrate in a vacuum process installation, wherein:

a) the substrate, in order to be held and/or transported, is secured over substantially its entire surface to a first planar main surface of a carrier clamped in a frame having an annular top part and an annular bottom part connected together to clamp said carrier therebetween.

b) the carrier is made of a nonconductive dielectric material having a conductive layer disposed at and forming the first main surface thereof,

c) a chuck electrode is arranged with a planar outer surface thereof parallel to and adjacent a second planar main surface of the carrier, the second planar main surface being on the opposite side from the first planar main surface, and

d) a voltage source is connected between the chuck electrode and the conductive layer of the carrier,

such that the carrier and the chuck electrode together form an electrostatic chuck device, said conductive layer of the carrier and the chuck electrode outer surface forming two plates of a plate-type capacitor.

16. (previously presented) The method as claimed in claim 15, characterized in that the substrate is adhesively bonded to the first planar main surface of the carrier by means of a vacuum-compatible and releasable adhesive.

Claims 17-18: (canceled)

19. (previously presented) The method as claimed in claim 15, characterized in that the chuck electrode is built on a base body which is formed by a radiofrequency electrode, the chuck electrode being electrically insulated from the radiofrequency electrode, and the voltage being applied between the chuck electrode and the frame.

20. (currently amended) A method for processing a substrate in a vacuum process installation, wherein:

a) the substrate, in order to be held and/or transported, is secured over substantially its entire surface to a first planar main surface of a carrier clamped in a frame having an annular top part and an annular bottom part connected together to clamp said carrier therebetween.

b) the carrier is made of a nonconductive dielectric material having a conductive layer disposed at and forming a second main surface of the carrier opposite said first main surface,

c) a chuck electrode is arranged with a planar outer surface thereof parallel to and adjacent the second planar main surface of the carrier, wherein a dielectric layer is arranged between the chuck electrode and the second planar main surface of the carrier, and

d) a voltage source is connected between the chuck electrode and the conductive layer of the carrier,

such that the carrier, the chuck electrode and the dielectric layer between them together form an electrostatic chuck device, said conductive layer of the carrier and the chuck electrode outer surface forming two plates of a plate-type capacitor.

21. (previously presented) The method as claimed in claim 15, characterized in that a voltage is applied between the frame and the chuck electrode.

22. (previously presented) The method as claimed in claim 15, characterized in that to control the temperature of the substrate a gas at a superatmospheric pressure is introduced into a space between the second main surface of the carrier and the planar outer surface of the chuck electrode.

23. (previously presented) The method as claimed in claim 15, characterized in that to release the substrate and the carrier, the conductive layer of the carrier is short-circuited with the chuck electrode.

24. (previously presented) The installation of claim 1, said installation being a vacuum process installation.

25. (previously presented) The installation of claim 4, said carrier being formed by a

polyimide film.

26. (previously presented) The installation of claim 6, wherein an insulated lead-through is provided passing through the radiofrequency electrode to provide a contact-connection with the chuck electrode.

27. (previously presented) The installation of claim 7, said dielectric layer comprising a plate of aluminum oxide (Al_2O_3).

28. (previously presented) The installation of claim 8, said voltage source generating a DC voltage of 200-1500 V.

29. (previously presented) The installation of claim 8, said voltage source generating a DC voltage of 500-1000 V.

30. (previously presented) The installation of claim 10, wherein said gas has a pressure of more than 100 Pa.

31. (previously presented) The installation as claimed in claim 1, said substrate being secured to the carrier via an adhesive.

32. (previously presented) The frame structure as claimed in claim 11, said substrate being secured to the film carrier via an adhesive.

33. (previously presented) The method as claimed in claim 20, said substrate being secured to the carrier via an adhesive.

34. (previously presented) The installation as claimed in claim 1, said chuck electrode being fixed at said processing station, said frame being removable from said processing station to transport said carrier and substrate into and out of said processing station.

35. (previously presented) The method as in claim 15, further comprising applying a

voltage between the chuck electrode and said conductive layer to electrostatically attract the carrier and the chuck electrode to one another during a processing step for the substrate, and thereafter removing said voltage and removing said frame and the carrier clamped therein from adjacent the chuck electrode.

36. (previously presented) The method as in claim 20, further comprising applying a voltage between the chuck electrode and said conductive layer to electrostatically attract the carrier and the chuck electrode to one another during a processing step for the substrate, and thereafter removing said voltage and removing said frame and the carrier clamped therein from adjacent the chuck electrode.

37. (new) The installation as claimed in claim 1, said top and bottom parts of said frame being releasably connected together to clamp said carrier therebetween.